

**FEDERALLY ENFORCEABLE STATE  
OPERATING PERMIT (FESOP) RENEWAL  
OFFICE OF AIR QUALITY**

**Thermo Products, LLC.  
5235 West State Road 10  
North Judson, Indiana 46366**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 149-13888-00012	
Original signed by Paul Dubenetzky Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: August 20, 2001  Expiration Date: August 20, 2006

## TABLE OF CONTENTS

<b>SECTION A</b>	<b>SOURCE SUMMARY</b> .....	4
A.1	General Information [326 IAC 2-8-3(b)]	
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	
A.3	Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]	
A.4	FESOP Applicability [326 IAC 2-8-2]	
A.5	Prior Permit Conditions	
<b>SECTION B</b>	<b>GENERAL CONDITIONS</b> .....	6
B.1	Permit No Defense [IC 13]	
B.2	Definitions [326 IAC 2-8-1]	
B.3	Permit Term [326 IAC 2-8-4(2)]	
B.4	Enforceability [326 IAC 2-8-6]	
B.5	Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]	
B.6	Severability [326 IAC 2-8-4(4)]	
B.7	Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]	
B.8	Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]	
B.9	Compliance Order Issuance [326 IAC 2-8-5(b)]	
B.10	Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]	
B.11	Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]	
B.12	Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	
B.13	Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]	
B.14	Emergency Provisions [326 IAC 2-8-12]	
B.15	Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]	
B.16	Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]	
B.17	Permit Renewal [326 IAC 2-8-3(h)]	
B.18	Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]	
B.19	Operational Flexibility [326 IAC 2-8-15]	
B.20	Permit Revision Requirement [326 IAC 2-8-11.1]	
B.21	Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]	
B.22	Transfer of Ownership or Operational Control [326 IAC 2-8-10]	
B.23	Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]	
<b>SECTION C</b>	<b>SOURCE OPERATION CONDITIONS</b> .....	16
	<b>Emission Limitations and Standards [326 IAC 2-8-4(1)]</b>	
C.1	Overall Source Limit [326 IAC 2-8]	
C.2	Opacity [326 IAC 5-1]	
C.3	Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.4	Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]	
C.5	Fugitive Dust Emissions [326 IAC 6-4]	
C.6	Operation of Equipment [326 IAC 2-8-5(a)(4)]	
C.7	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61 Subpart M]	
	<b>Testing Requirements [326 IAC 2-8-4(3)]</b>	
C.8	Performance Testing [326 IAC 3-6]	
	<b>Compliance Requirements [326 IAC 2-1.1-11]</b>	
C.9	Compliance Requirements [326 IAC 2-1.1-11]	

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

- C.10 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]
- C.11 Monitoring Methods [326 IAC 3] [40 CFR 60][40 CFR 63]

**Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

- C.12 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]
- C.13 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4, 5]
- C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4, 5]

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

- C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]
- C.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

**Stratospheric Ozone Protection**

- C.17 Compliance with 40 CFR 82 and 326 IAC 22-1

**SECTION D.1 FACILITY OPERATION CONDITIONS: Two (2) Spray Paint Booths ..... 23**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

- D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4]
- D.1.2 HAPs Limitations [326 IAC 2-8-4]
- D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]
- D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

**Compliance Determination Requirements**

- D.1.5 Volatile Organic Compounds (VOC)
- D.1.6 Hazardous Air Pollutants (HAPs)
- D.1.7 VOC and HAP Emissions
- D.1.8 Particulate Matter (PM)

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

- D.1.9 Monitoring

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

- D.1.10 Record Keeping Requirements
- D.1.11 Reporting Requirements

**SECTION D.2 FACILITY OPERATION CONDITIONS: Insignificant Activities ..... 26**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

- D.2.1 Burning Regulations for Incinerators (PM) [326 IAC 4-2]
- D.2.2 Particulate Matter (PM) [326 IAC 6-2-4]
- D.2.3 Particulate Matter (PM) [326 IAC 6-3-2]

**Certification ..... 28**

**Emergency Occurrence Report ..... 29**

**Quarterly Reports ..... 31**

**Quarterly Deviation and Compliance Monitoring Report ..... 34**

## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary furnace and air conditioner manufacturing source.

Authorized Individual:	Allen Kuehl
Source Address:	5235 West State Road 10, North Judson, Indiana 46366
Mailing Address:	P.O. Box 217, North Judson, Indiana 46366
General Source Phone Number:	219-896-2133
SIC Code:	3585
County Location:	Starke
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

Two (2) spray paint booths, known as P1 and P2, exhausting to stacks P1 and P2, each equipped with dry filters for PM overspray control, capacity: 6.5 furnaces/air conditioners per hour, each. Booth P1 was installed in 1979, and Booth P2 was installed in November, 1993. Booth P2 replaced in kind a facility that was in operation since the 1950's.

### A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, consisting of:
  - (1) Twenty-four (24) heating furnaces, rated at 3.27 million British thermal units per hour, total.
  - (2) One (1) boiler (open vessel), known as B1a, to be installed on or around July 2001, rated at 0.50 million British thermal units per hour. (326 IAC 6-2-4)
  - (3) One (1) boiler (open vessel), known as B1b, installed in July 1985, rated at 0.35 million British thermal units per hour. (326 IAC 6-2-4)
  - (4) One (1) heating boiler, known as B1c, installed in August 1988, rated at 0.40 million British thermal units per hour. (326 IAC 6-2-4)
  - (5) One (1) paint bake oven, known as P3, rated at 0.80 million British thermal units per hour.

- (6) One (1) drying furnace, known as P4a, rated at 0.25 million British thermal units per hour.
- (7) One (1) drying furnace, known as P4b, rated at 0.25 million British thermal units per hour, total.
- (8) Five (5) furnace test areas, known as T1 through T5, rated at 1.08 million British thermal units per hour, total.
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. (326 IAC 6-3-2)
- (c) Closed loop heating and cooling systems.
- (d) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.
- (e) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs.
- (f) One (1) natural gas-fired waste incinerator rated at 1.1 million British thermal units per hour, capacity: 120 pounds per hour of combustible materials. (326 IAC 4-2-2)
- (g) One (1) robotic plasma cutter with potential HAP emissions of 0.56 tons per year.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP) Renewal.

A.5 Prior Permit Conditions

- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

## SECTION B

## GENERAL CONDITIONS

### B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

### B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

### B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

### B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

### B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

### B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM,

OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]

- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]**

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

**B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]**

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; and
  - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

**B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]**

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

**B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification covered the time period from the date of the first original final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contem-



poraneous operating logs or other relevant evidence that describes the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)  
or,  
Telephone No.: 317-233-5674 (ask for Compliance Section)  
Facsimile No.: 317-233-5967

Failure to notify IDEM, OAQ, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

**B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]**

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.

The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
  - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

- (2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]**

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.17 Permit Renewal [326 IAC 2-8-3(h)]**

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

**B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]**

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(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.19 Operational Flexibility [326 IAC 2-8-15]**

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(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with

326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed under 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source
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### Emissions Limitations and Standards [326 IAC 2-8-4(1)]

#### C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), emissions of particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

#### C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.



C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

### **Testing Requirements [326 IAC 2-8-4(3)]**

#### **C.8 Performance Testing [326 IAC 3-6]**

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### **Compliance Requirements [326 IAC 2-1.1-11]**

#### **C.9 Compliance Requirements [326 IAC 2-1.1-11]**

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

#### **C.10 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]**

Unless otherwise specified in this permit, all monitoring and record keeping requirements not

already legally required shall be implemented. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

**C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

**Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**C.12 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]**

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**C.13 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]**

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:
  - (1) This condition;
  - (2) The Compliance Determination Requirements in Section D of this permit;
  - (3) The Compliance Monitoring Requirements in Section D of this permit;
  - (4) The Record Keeping and Reporting Requirements in Section C (General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
  - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:

- (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
    - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
  - (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps may constitute a violation of the permit.
  - (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
    - (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
    - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
    - (3) An automatic measurement was taken when the process was not operating.
    - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
  - (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
  - (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
  - (f) At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.
- C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]
- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

#### **C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]**

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

#### **C.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]**

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report covered the time period commencing on the date of issuance of original FESOP and ending on the last day of the reporting period. All subsequent reporting periods shall be based on calendar years.

### **Stratospheric Ozone Protection**

#### **C.17 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

Two (2) spray paint booths, known as P1 and P2, exhausting to stacks P1 and P2, each equipped with dry filters for PM overspray control, capacity: 6.5 furnaces/air conditioners per hour, each. Booth P1 was installed in 1979, and Booth P2 was installed in November, 1993. Booth P2 replaced in kind a facility that was in operation since the 1950's.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4]

The volatile organic compound (VOC) delivered to the coating applicators in spray booths P1 and P2 shall not exceed a total of 99.0 tons per twelve (12) consecutive month period. This will limit the VOC emissions from the entire source, including insignificant activities, to less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.

#### D.1.2 HAPs Limitations [326 IAC 2-8-4]

- (a) The worst case single HAP delivered to the coating applicators in spray booths P1 and P2 shall not exceed a total of ten (10) tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 do not apply.
- (b) The combination of HAPs delivered to the coating applicators in spray booths P1 and P2 shall not exceed a total of 24.38 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 do not apply.

#### D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

The PM from the two (2) spray paint booths, known as P1 and P2, shall each not exceed the pound per hour emission rates established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

#### D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

### Compliance Determination Requirements

#### D.1.5 Volatile Organic Compounds (VOC)

Compliance with the VOC usage limitations contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.

#### D.1.6 Hazardous Air Pollutants (HAPs)

Compliance with the HAPs usage limitations contained in Condition D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating

manufacturer.

**D.1.7 VOC and HAP Emissions**

Compliance with Conditions D.1.1 and D.1.2 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound and HAP usage for the month.

**D.1.8 Particulate Matter (PM)**

The dry filters for PM control shall be in operation at all times when the two (2) spray paint booths known as P1 and P2 are in operation.

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**D.1.9 Monitoring**

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (P1 and P2) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

**D.1.10 Record Keeping Requirements**

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1.
  - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
  - (2) A log of the dates of use;
  - (3) The cleanup solvent usage for each month;
  - (4) The total VOC usage for each month; and
  - (5) The weight of VOCs emitted for each compliance period.



- (b) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.1.2.
  - (1) The amount and HAP content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
  - (2) A log of the dates of use;
  - (3) The cleanup solvent usage for each month;
  - (4) The total single and combination of HAPs usage for each month; and
  - (5) The weight of single and combination HAPs emitted for each compliance period.
- (c) To document compliance with Condition D.1.8, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.11 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, consisting of:
  - (1) Twenty-four (24) heating furnaces, rated at 3.27 million British thermal units per hour, total.
  - (2) One (1) boiler (open vessel), known as B1a, to be installed on or around July 2001, rated at 0.50 million British thermal units per hour. (326 IAC 6-2-4)
  - (3) One (1) boiler (open vessel), known as B1b, installed in July 1985, rated at 0.35 million British thermal units per hour. (326 IAC 6-2-4)
  - (4) One (1) heating boiler, known as B1c, installed in August 1988, rated at 0.40 million British thermal units per hour. (326 IAC 6-2-4)
  - (5) One (1) paint bake oven, known as P3, rated at 0.80 million British thermal units per hour.
  - (6) One (1) drying furnace, known as P4a, rated at 0.25 million British thermal units per hour.
  - (7) One (1) drying furnace, known as P4b, rated at 0.25 million British thermal units per hour, total.
  - (8) Five (5) furnace test areas, known as T1 through T5, rated at 1.08 million British thermal units per hour, total.
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. (326 IAC 6-3-2)
- (c) Closed loop heating and cooling systems.
- (d) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.
- (e) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs.
- (f) One (1) natural gas-fired waste incinerator rated at 1.1 million British thermal units per hour, capacity: 120 pounds per hour of combustible materials. (326 IAC 4-2-2)
- (g) One (1) robotic plasma cutter with potential HAP emissions of 0.56 tons per year.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.2.1 Burning Regulations for Incinerators (PM) [326 IAC 4-2]

Pursuant to 326 IAC 4-2-2, the one (1) natural gas fired waste incinerator with a capacity of 120 pounds of combustible materials per hour shall:

- (a) Consist of primary and secondary chambers or the equivalent;
- (b) be equipped with a primary burner unless burning wood products;
- (c) comply with 326 IAC 5-1 and 326 IAC 2;
- (d) be maintained properly as specified by the manufacturer and approved by the commissioner;
- (e) be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner;
- (f) comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;
- (g) be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;
- (h) not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air; and
- (i) not create a nuisance or a fire hazard.

The operation of the incinerator shall be terminated immediately upon noncompliance with any of the above mentioned requirements.

D.2.2 Particulate Matter (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a), the allowable PM emission rate from the one (1) boiler (open vessel), known as B1a, the one (1) boiler (open vessel), known as B1b, and the one (1) heating boiler, known as B1c, shall not exceed 0.6 pounds per million British thermal units per hour heat input, each.

D.2.3 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the brazing, cutting, soldering, welding operations shall not exceed allowable PM emission rate based on the following equations:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour.}$$

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Thermo Products, LLC.  
Source Address: 5235 West State Road 10, North Judson, Indiana 46366  
Mailing Address: P.O. Box 217, North Judson, Indiana 46366  
FESOP No.: F 149-13888-00012

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) \_\_\_\_\_
- 9 Report (specify) \_\_\_\_\_
- 9 Notification (specify) \_\_\_\_\_
- 9 Affidavit (specify) \_\_\_\_\_
- 9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
P.O. Box 6015  
100 North Senate Avenue  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: Thermo Products, LLC.  
Source Address: 5235 West State Road 10, North Judson, Indiana 46366  
Mailing Address: P.O. Box 217, North Judson, Indiana 46366  
FESOP No.: F 149-13888-00012

**This form consists of 2 pages**

**Page 1 of 2**

**9** This is an emergency as defined in 326 IAC 2-7-1(12)  
CThe Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and  
CThe Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**FESOP Quarterly Report**

Source Name: Thermo Products, LLC.  
Source Address: 5235 West State Road 10, North Judson, Indiana 46366  
Mailing Address: P.O. Box 217, North Judson, Indiana 46366  
FESOP No.: F 149-13888-00012  
Facility: Spray Paint Booths P1 and P2  
Parameter: Total worst case single HAP delivered to the applicators  
Limit: Less than ten (10) tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Single HAP (tons)	Single HAP (tons)	Single HAP (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**FESOP Quarterly Report**

Source Name: Thermo Products, LLC.  
Source Address: 5235 West State Road 10, North Judson, Indiana 46366  
Mailing Address: P.O. Box 217, North Judson, Indiana 46366  
FESOP No.: F 149-13888-00012  
Facility: Spray Paint Booths P1 and P2  
Parameter: Total combination of HAPS delivered to the applicators  
Limit: Less than 24.38 per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Combination HAP (tons)	Combination HAP (tons)	Combination HAP (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**FESOP Quarterly Report**

Source Name: Thermo Products, LLC.  
Source Address: 5235 West State Road 10, North Judson, Indiana 46366  
Mailing Address: P.O. Box 217, North Judson, Indiana 46366  
FESOP No.: F 149-13888-00012  
Facility: Spray Paint Booths P1 and P2  
Parameter: Total VOC delivered to the applicators  
Limit: Less than 99 tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	VOC (tons)	VOC (tons)	VOC (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Thermo Products, LLC.  
Source Address: 5235 West State Road 10, North Judson, Indiana 46366  
Mailing Address: P.O. Box 217, North Judson, Indiana 46366  
FESOP No.: F 149-13888-00012

**Months:** \_\_\_\_\_ **to** \_\_\_\_\_ **Year:** \_\_\_\_\_

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

**9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.**

**9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

  

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

  

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

9      No deviation occurred in this quarter.

9      Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Quality

### Addendum to the Technical Support Document for Federally Enforceable State Operating Permit (FESOP)

**Source Name:** Thermo Products, LLC  
**Source Location:** 5235 West State Road 10, North Judson, Indiana 46366  
**County:** Starke  
**FESOP:** F 149-13888-00012  
**SIC Code:** 3585  
**Permit Reviewer:** Craig J. Friederich

On July 5, 2001, the Office of Air Quality (OAQ) had a notice published in the Knox Lead & Review, Knox, Indiana, stating that Thermo Products, LLC had applied for a Federally Enforceable State Operating Permit (FESOP) to operate furnace and air conditioner manufacturing source with dry filters for PM control. The notice also stated that OAQ proposed to issue a FESOP for this operation and provided information on how the public could review the proposed FESOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP should be issued as proposed.

Upon further review, the OAQ has decided to make the following changes to the FESOP: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

#### Change 1:

Condition B.10 (Compliance with Permit Conditions) has been revised to clarify that noncompliance with any requirement of this permit may result in an enforcement action against the Permittee, an action to modify, revoke, reissue or terminate the source's permit, and/or a denial of the Permittee's application to renew the permit as follows:

#### B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, ~~except those specifically designated as not federally enforceable~~, is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; and
  - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

**Change 2:**

In Condition B.11, the word “a” has been changed to “an” as follows:

**B.11 Certification** [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

---

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by **an** authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

**Change 3:**

In Condition B.20, the word “under” has been added as follows:

**B.20 Permit Revision Requirement** [326 IAC 2-8-11.1]

---

A modification, construction, or reconstruction is governed **under** 326 IAC 2 and 326 IAC 2-8-11.1.

**Change 4:**

All references to the Compliance Data Section have been changed to Compliance Branch throughout the entire permit.

**Indiana Department of Environmental Management  
Office of Air Quality**

**Technical Support Document (TSD)  
for a Federally Enforceable State Operating Permit (FESOP) Renewal**

**Source Background and Description**

<b>Source Name:</b>	<b>Thermo Products, LLC.</b>
<b>Source Location:</b>	<b>5235 West State Road 10, North Judson, Indiana 46366</b>
<b>County:</b>	<b>Starke</b>
<b>SIC Code:</b>	<b>3585</b>
<b>Operation Permit No.:</b>	<b>F 149-13888-00012</b>
<b>Permit Reviewer:</b>	<b>Craig J. Friederich</b>

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Thermo Products, LLC. relating to the operation of a furnace and air conditioner manufacturing source. The original FESOP 149-5595, issued on December 10, 1996 expires on December 10, 2001.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

Two (2) spray paint booths, known as P1 and P2, exhausting to stacks P1 and P2, each equipped with dry filters for PM overspray control, capacity: 6.5 furnaces/air conditioners per hour, each. Booth P1 was installed in 1979, and Booth P2 was installed in November, 1993. Booth P2 replaced in kind a facility that was in operation since the 1950's.

**Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

**New Emission Units and Pollution Control Equipment Receiving Prior Approval**

There are no new facilities proposed at this source during this review process.

**Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, consisting of:
  - (1) Twenty-four (24) heating furnaces, rated at 3.27 million British thermal units per hour, total.
  - (2) One (1) boiler (open vessel), known as B1a, to be installed on or about July 2001, rated at 0.50 million British thermal units per hour. (326 IAC 6-2-4)

- (3) One (1) boiler (open vessel), known as B1b, installed in July 1985, rated at 0.35 million British thermal units per hour. (326 IAC 6-2-4)
- (4) One (1) heating boiler, known as B1c, installed in August 1988, rated at 0.40 million British thermal units per hour. (326 IAC 6-2-4)
- (5) One (1) paint bake oven, known as P3, rated at 0.80 million British thermal units per hour.
- (6) One (1) drying furnace, known as P4a, rated at 0.25 million British thermal units per hour.
- (7) One (1) drying furnace, known as P4b, rated at 0.25 million British thermal units per hour, total.
- (8) Five (5) furnace test areas, known as T1 through T5, rated at 1.08 million British thermal units per hour, total.
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. (326 IAC 6-3-2)
- (c) Closed loop heating and cooling systems.
- (d) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.
- (e) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs.
- (f) One (1) natural gas-fired waste incinerator rated at 1.1 million British thermal units per hour, capacity: 120 pounds per hour of combustible materials. (326 IAC 4-2-2)

#### **Insignificant Activities Added to the Source**

- (g) One (1) robotic plasma cutter with potential HAP emissions of 0.56 tons per year.

#### **Existing Approvals**

The source has been operating under previous approvals including, but not limited to, the following:

- (a) F 149-5595-00012, issued on December 10, 1996;
- (b) First Administrative Amendment, AAF 149-8927-00012, issued on October 27, 1997; and
- (c) Second Administrative Amendment, AAF, 149-13606-00012 issued on January 19, 2001

All conditions from previous approvals were incorporated into this FESOP.

#### **Enforcement Issue**

There are no enforcement actions pending.

## Recommendation

The staff recommends to the Commissioner that the FESOP renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP renewal application for the purposes of this review was received on February 5, 2001. Additional information was received on May 30 and May 31, 2001. The application was received timely, more than nine (9) months before the December 10, 2001 expiration of the original FESOP.

## Emission Calculations

See Appendix A (pages 1 through 11 of 11) of this document for detailed emissions calculations.

## Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

The source, issued a FESOP on December 10, 1996, has opted to continue with their FESOP status, rather than applying for a Part 70 Operating Permit. Therefore, the following table also reflects the PTE after all FESOP limitations. The potential to emit before controls of VOC is greater than 100 tons per year. The potential to emit a single HAP is greater than 10 tons per year and the potential to emit combination HAPS is greater than 25 tons per year. Therefore, this source is subject to 326 IAC 2-7.

Pollutant	Potential To Emit (tons/year)
PM	5.17
PM <sub>10</sub>	5.27
SO <sub>2</sub>	0.678
VOC	less than 100 tons per year
CO	5.57
NO <sub>x</sub>	4.29

Note: For the purpose of determining Title V applicability for particulates, PM<sub>10</sub>, not PM, is the regulated pollutant in consideration.



HAPs	Potential To Emit (tons/year)
Single	less than 10 tons per year
Combination	less than 25 tons per year

This source, otherwise required to obtain a Title V permit, agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source was issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8. The source will continue to comply with the requirements of 326 IAC 2-8, FESOP.

### Actual Emissions

No previous emission data has been received from the source.

### Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Federally Enforceable State Operating Permit.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Two (2) Spray Paint Booths (P1 and P2)	0.167	0.167	0.00	less than 99.0 tons per year	0.00	0.00	single less than 10, combination less than 24.38
Insignificant Activities	5.00	5.06	0.675	1.00	5.17	3.81	0.617
Total Emissions	5.17	5.23	0.675	less than 100 tons per year	5.17	3.81	Single less than 10, combination less than 25

### County Attainment Status

The source is located in Starke County.

Pollutant	Status
PM <sub>10</sub>	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
Ozone	Attainment

Pollutant	Status
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Starke County has been designated as attainment or unclassifiable for ozone.
- (b) Starke County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

#### **Federal Rule Applicability**

- (a) The two (2) spray paint booths are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.450), Subpart SS, because they are not coating an oven, microwave oven, refrigerator, freezer, washer, dryer, dishwasher, water heater, or trash compactor manufactured for household, commercial, or recreational use. These facilities are defined as large appliances in Subpart SS.
- (b) The one (1) natural gas fired incinerator is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.50), Subpart E, because the capacity is less than fifty (50) tons per day.
- (c) There are still no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this source.

#### **State Rule Applicability - Entire Source**

##### **326 IAC 2-6 (Emission Reporting)**

This source is located in Starke County and the potential to emit VOC is less than one hundred (100) tons per year. The source is not one of the twenty-eight (28) listed sources and its potential to emit PM<sub>10</sub> is less than one hundred (100) tons per year, including fugitive emissions, therefore, 326 IAC 2-6 does not apply.

##### **326 IAC 2-8-4 (FESOP)**

Pursuant to this rule, the amount of PM<sub>10</sub>, SO<sub>2</sub>, VOC, CO and NO<sub>x</sub> shall be limited to less than one hundred (100) tons per year. In addition, the amount of a single HAP shall be limited to less than ten (10) tons per year and the combination of all HAPs shall be limited to less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

##### **326 IAC 5-1 (Opacity Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### **State Rule Applicability - Individual Facilities**

#### **326 IAC 6-3-2 (Process Operations)**

The particulate matter (PM) from the two (2) spray paint booths shall each be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The dry filters shall be in operation at all times the two (2) spray paint booths are in operation, in order to comply with this limit.

#### **326 IAC 8-1-6 (New facilities; general reduction requirements)**

The two (2) spray paint booths are not subject to the requirements of 326 IAC 8-1-6 because neither of the booths were built after 1980. Paint Booth P1 was installed in April 1979 and Paint Booth P2 replaced a like facility that was in operation since the 1950's.

#### **326 IAC 8-2-9 (Miscellaneous Metal Coating)**

Due to the installation of Paint Booth P1 in April 1979 and the fact that Paint Booth P2 replaced in kind a facility that was in operation since the 1950's, these two paint booths are not subject to this rule. This facility has been in operation since May of 1946 and conducting the same basic painting operations since the early 1950's. Paint Booth P2 was installed in November 1993 to improve lighting and the overall working conditions. This improvement has no effect on the units potential to emit. For these reasons this booth change is not interpreted as a "Modification" (as defined in 326 IAC 1-2-42), similarly, based on the relatively low cost, it would not constitute a "Reconstruction" (as defined in 326 IAC 1-2-65).

### **State Rule Applicability - Insignificant Activities**

#### **326 IAC 4-2-2 (Incinerators)**

Pursuant to 326 IAC 4-2-2, the one (1) natural gas fired incinerator with a capacity of 120 pounds of combustible material per hour shall:

- (a) Consist of primary and secondary chambers or the equivalent;
- (b) be equipped with a primary burner unless burning wood products;
- (c) comply with 326 IAC 5-1 and 326 IAC 2;

- (d) be maintained properly as specified by the manufacturer and approved by the commissioner;
- (e) be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner;
- (f) comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;
- (g) be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;
- (h) not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air; and
- (i) not create a nuisance or a fire hazard.

If any of the above result, the burning shall be terminated immediately.

326 IAC 6-2-4 (Particulate Emissions Limitations for Facilities Constructed after September 21, 1983)

**One (1) boiler (open vessel), known as B1b**

- (a) The one (1) boiler (open vessel), known as B1b, installed in July 1985, rated at 0.35 million British thermal units per hour, must comply with the requirements of 326 IAC 6-2-4. The emission limitation is based on the following equation is given in 326 IAC 6-2-4:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/mmBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

The total heat input capacity for the source, including the 0.35 million British thermal units per hour boiler, is 0.35 million British thermal units per hour.

$$Pt = 1.09/(0.35)^{0.26} = 1.43\text{lb/mmBtu heat input}$$

Pursuant to 326 IAC 6-2-4(a), for Q less than 10 million British thermal units per hour, Pt shall not exceed 0.6 pound per million British thermal units. Therefore, the one (1) boiler (open vessel) known as B1b is limited to emissions of 0.6 pound per million British thermal units.

Based on Appendix A, the potential PM emission rate is:

$$0.012 \text{ ton/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 0.0027 \text{ lb/hr}$$

$$(0.0027 \text{ lb/hr} / 0.35 \text{ mmBtu/hr}) = 0.0077 \text{ lb PM per mmBtu}$$

The PM emissions from the one (1) boiler are 0.0077 pound PM per million British thermal units per hour, which is less than the allowable of 0.6 pound per million British thermal units per hour. Therefore, the one (1) boiler, B1b is in compliance with this rule.

**One (1) heating boiler, known as B1c**

- (b) The one (1) heating boiler, known as B1c, installed in August 1988, rated at 0.40 million British thermal units per hour, must comply with the requirements of 326 IAC 6-2-4. The emission limitation is based on the following equation is given in 326 IAC 6-2-4:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/mmBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

The total heat input capacity for the source, including the 0.40 million British thermal units per hour boiler, is 0.75 million British thermal units per hour.

$$Pt = 1.09/(0.75)^{0.26} = 1.18 \text{ lb/mmBtu heat input}$$

Pursuant to 326 IAC 6-2-4(a), for Q less than 10 million British thermal units per hour, Pt shall not exceed 0.6 pound per million British thermal units. Therefore, the one (1) heating boiler is limited to emissions of 0.6 pound per million British thermal units.

Based on Appendix A, the potential PM emission rate is:

$$0.013 \text{ ton/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 0.0030 \text{ lb/hr}$$
$$(0.0030 \text{ lb/hr} / 0.75 \text{ mmBtu/hr}) = 0.004 \text{ lb PM per mmBtu}$$

The PM emissions from the one (1) heating boiler are 0.004 pound PM per million British thermal units per hour, which is less than the allowable of 0.6 pound per million British thermal units per hour. Therefore, the one (1) heater boiler, B1c is in compliance with this rule.

**One (1) boiler (open vessel), known as B1a**

- (c) The one (1) boiler (open vessel), known as B1a, to be installed on or around July 2001, rated at 0.50 million British thermal units per hour, must comply with the requirements of 326 IAC 6-2-4. The emission limitation is based on the following equation is given in 326 IAC 6-2-4:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/mmBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

The total heat input capacity for the source, including the 0.50 million British thermal units per hour boiler, is 1.25 million British thermal units per hour.

$$Pt = 1.09/(1.25)^{0.26} = 1.03 \text{ lb/mmBtu heat input}$$

Pursuant to 326 IAC 6-2-4(a), for Q less than 10 million British thermal units per hour, Pt shall not exceed 0.6 pound per million British thermal units. Therefore, the one (1) boiler (open vessel) is limited to emissions of 0.6 pound per million British thermal units.

Based on Appendix A, the potential PM emission rate is:

$$0.017 \text{ ton/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 0.004 \text{ lb/hr}$$
$$(0.004 \text{ lb/hr} / 1.25 \text{ mmBtu/hr}) = 0.0032 \text{ lb PM per mmBtu}$$

The PM emissions from the one (1) boiler (open vessel) are 0.0032 pound PM per million British thermal units per hour, which is less than the allowable of 0.6 pound per million British thermal units per hour. Therefore, the one (1) boiler, B1a is in compliance with this rule.

### 326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the brazing, soldering, welding, and cutting operations shall not exceed the allowable emission rate of particulate matter per hour as determined by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and}$$
$$P = \text{process weight rate in tons per hour}$$

### Testing Requirements

There is no testing required at this source. Emission calculations for all combustion sources are based on AP-42 emission factors. Emission calculations for the surface coating booths are based on usage and information from Material Safety Data Sheets.

### Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance require-

ments are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The two (2) spray paint booths have applicable compliance monitoring conditions as specified below:

- (1) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters for the two (2) spray paint booths, known as P1 and P2. To monitor the performance of the dry filters, weekly observations shall be made of the overspray while the spray paint booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (2) Monthly inspections shall be performed of the coating emissions from the spray paint booths stack exhausts, known as Stacks P1 and P2, for the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an overspray emission, evidence of overspray emission, or other abnormal emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (3) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary because the dry filters for the two (2) paint spray booths must operate properly to ensure compliance with 326 IAC 6-3-2.

## **Conclusion**

The operation of this furnace and air conditioner manufacturing source shall be subject to the conditions of the attached proposed FESOP Renewal No.: F 149-13888-00012.

**Appendix A: State Potential Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations**

**Company Name:** Thermo Products, LLC.  
**Address City IN Zip:** 5235 West State Road 10, North Judson, Indiana 46366  
**FESOP:** F 149-13888  
**Pit ID:** 149-00012  
**Reviewer:** Craig J. Friederich  
**Date:** February 5, 2001

Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ons per year	lb VOC /gal solids	Transfer Efficiency
<b>Booth P1</b>																
Maroon Low Bake Paint	7.70	62.50%	0.0%	62.50%	0.0%	6.66%	0.1746	6.5	4.81	4.81	5.46	131.08	23.92	3.59	72.26	75%
Silver Low Bake Paint	7.70	62.50%	0.0%	62.50%	0.0%	6.66%	0.2314	6.5	4.81	4.81	7.24	173.72	31.70	4.76	72.26	75%
Terra Tone Bake Enamel	10.20	27.07%	0.0%	27.07%	0.0%	62.03%	0.0738	3.5	2.76	2.76	0.71	17.12	3.12	4.21	4.45	50%
MAK	6.80	100.00%	0.0%	100.00%	0.0%	0.00%	0.0546	6.5	6.80	6.80	2.41	57.92	10.57	0.00	N/A	100%
Lacquer Thinner	4.96	100.00%	0.0%	100.00%	0.0%	0.00%	0.0200	6.5	4.96	4.96	0.64	15.48	2.82	0.00	N/A	100%
								PM Control Efficiency	99.10%							
								<b>Uncontrolled:</b>			<b>16.5</b>	<b>395</b>	<b>72.1</b>	<b>12.6</b>		
								<b>Controlled:</b>			<b>16.5</b>	<b>395</b>	<b>72.1</b>	<b>0.113</b>		
<b>Booth P2</b>																
Silver Air Dry Enamel	7.90	64.07%	0.0%	64.07%	0.0%	30.31%	0.1203	6.5	5.06	5.06	3.96	94.99	17.34	4.86	16.70	50%
New Acid Bronze Lacquer	7.50	94.17%	0.0%	94.17%	0.0%	2.02%	0.1151	6.5	7.06	7.06	5.28	126.82	23.14	0.72	349.64	50%
Flat Black Air Dry Enamel	8.75	58.20%	0.0%	58.20%	0.0%	28.90%	0.0075	6.5	5.09	5.09	0.25	5.96	1.09	0.39	17.62	50%
								PM Control Efficiency	99.10%							
								<b>Uncontrolled:</b>			<b>9.49</b>	<b>228</b>	<b>41.6</b>	<b>5.97</b>		
								<b>Controlled:</b>			<b>9.49</b>	<b>228</b>	<b>41.6</b>	<b>0.054</b>		
								<b>Uncontrolled Total:</b>			<b>26.0</b>	<b>623</b>	<b>114</b>	<b>18.5</b>		
								<b>Controlled Total:</b>			<b>26.0</b>	<b>623</b>	<b>114</b>	<b>0.167</b>		

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* Flash-off

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day) \* Flash-off

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs) \* Flash-off

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids) \* Flash-off

Total = Worst Coating + Sum of all solvents used



## HAP Emission Calculations

Company Name: Thermo Products, LLC.  
Address City IN Zip: 5235 West State Road 10, North Judson, Indiana 46366  
FESOP: F 149-13888  
Plt ID: 149-00012  
Reviewer: Craig J. Friederich  
Date: February 5, 2001

Material	Density (lb/gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Toluene	Weight % Xylene	Weight % Formaldehyde	Weight % Glycol ether	Weight % Ethylbenzene	Weight % MEK	Weight % Triethylamine	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Glycol ether Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	MEK Emissions (ton/yr)	Triethylamine Emissions (ton/yr)	Total HAPs Emissions (ton/yr)
<b>Booth P1</b>																		
Maroon Low Bake Paint	7.70	0.1746	6.50	3.53%	1.94%	0.18%	4.99%	0.00%	0.00%	0.00%	1.35	0.74	0.07	1.91	0.00	0.00	0.00	
Silver Low Bake Paint	7.70	0.2314	6.50	3.53%	1.94%	0.18%	4.99%	0.00%	0.00%	0.00%	1.79	0.98	0.09	2.53	0.00	0.00	0.00	
Terra Tone Bake Enamel	10.20	0.0738	3.50	4.28%	15.26%	0.00%	3.03%	0.00%	0.00%	0.00%	0.49	1.76	0.00	0.35	0.00	0.00	0.00	
MAK	6.80	0.0546	6.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Lacquer Thinner	4.96	0.0200	6.50	30.00%	0.00%	0.00%	0.00%	0.00%	12.00%	0.00%	0.85	0.00	0.00	0.00	0.00	0.34	0.00	
<b>Booth P2</b>																		
Silver Air Dry Enamel	7.90	0.1203	6.50	32.27%	11.21%	0.00%	0.00%	0.00%	0.00%	0.47%	8.73	3.03	0.00	0.00	0.00	0.00	0.13	
New Acid Bronze Lacquer	7.50	0.1151	6.50	0.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.12	0.00	0.00	0.00	0.00	0.00	0.00	
Flat Black Air Dry Enamel	8.75	0.0075	6.50	14.00%	36.00%	0.00%	0.00%	7.00%	0.00%	0.00%	0.26	0.67	0.00	0.00	0.13	0.00	0.00	
<b>Subtotal Booth P1:</b>										(ton/yr):	4.48	3.49	0.16	4.79	0.00	0.34	0.00	13.3
<b>Subtotal Booth P2:</b>										(ton/yr):	9.12	3.71	0.00	0.00	0.13	0.00	0.13	13.1
<b>GRAND TOTAL:</b>										(ton/yr):	13.6	7.19	0.160	4.79	0.131	0.339	0.127	26.3
										(lb/hr):	3.107	1.644	0.037	1.095	0.030	0.077	0.029	6.02
										(g/sec):	0.392	0.207	0.005	0.138	0.004	0.010	0.004	0.76

HAPS emission rate (tons/yr) = Density (lb/gal) \* Gal of Material (gal/unit) \* Maximum (unit/hr) \* Weight % HAP \* 8760 hrs/yr \* 1 ton/2000 lbs

## Appendix A: Emission Calculations Incinerator

Page 3 of 11 TSD App A

**Company Name:** Thermo Products, LLC.  
**Address City IN Zip:** 5235 West State Road 10, North Judson, Indiana 46366  
**FESOP:** F 149-13888  
**Plt ID:** 149-00012  
**Reviewer:** Craig J. Friederich  
**Date:** February 5, 2001

THROUGHPUT
lbs/hr
120

THROUGHPUT  
 tons/yr  
 525.6

Emission Factor in lb/ton	POLLUTANT				
	PM	SO2	CO	VOC	NOX
	7.0	2.5	10.0	3.0	3.0
Potential Emissions in ton/yr	1.84	0.657	2.63	0.788	0.788

### Methodology

Emission factors are from AP 42 (5th Edition 1/95) Table 2.1-12, Uncontrolled emission factors for industrial/commercial refuse combustors, multiple chambers

Throughput (lb/hr) \* 8760 hr/yr \* ton/2000 lb = throughput (ton/yr)

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100  
Small Industrial Boiler**

**Page 4 of 11 TSD App A**

**Company Name: Thermo Products, LLC.  
Address City IN Zip: 5235 West State Road 10, North Judson, Indiana 46366  
FESOP: F 149-13888  
Plt ID: 149-00012  
Reviewer: Craig J. Friederich  
Date: February 5, 2001**

**Open Vessel Boiler B1a**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

0.500

4.38

Pollutant						
Emission Factor in lb/MMCF	PM* 1.9	PM10* 7.6	SO2 0.6	NOx 100.0 **see below	VOC 5.5	CO 84.0
Potential Emission in tons/yr	0.004	0.017	0.001	0.219	0.012	0.184

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 5 for HAPs emissions calculations.

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****HAPs Emissions****Company Name: Thermo Products, LLC.****Address City IN Zip: 5235 West State Road 10, North Judson, Indiana 46366****FESOP: F 149-13888****Plt ID: 149-00012****Reviewer: Craig J. Friederich****Date: February 5, 2001****Open Vessel Boiler B1a****HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	4.599E-06	2.628E-06	1.643E-04	3.942E-03	7.446E-06

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	1.095E-06	2.409E-06	3.066E-06	8.322E-07	4.599E-06	0.004

Methodology is the same as page 4.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100  
Small Industrial Boiler**

**Page 6 of 11 TSD App A**

**Company Name: Thermo Products, LLC.  
Address City IN Zip: 5235 West State Road 10, North Judson, Indiana 46366  
FESOP: F 149-13888  
Plt ID: 149-00012  
Reviewer: Craig J. Friederich  
Date: February 5, 2001**

**Open vessel Boiler B1b**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

0.350

3.07

Pollutant						
Emission Factor in lb/MMCF	PM* 1.9	PM10* 7.6	SO2 0.6	NOx 100.0 **see below	VOC 5.5	CO 84.0
Potential Emission in tons/yr	0.003	0.012	0.001	0.153	0.008	0.129

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 7 for HAPs emissions calculations.

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****HAPs Emissions****Company Name: Thermo Products, LLC.****Address City IN Zip: 5235 West State Road 10, North Judson, Indiana 46366****FESOP: F 149-13888****Plt ID: 149-00012****Reviewer: Craig J. Friederich****Date: February 5, 2001****Open vessel Boiler B1b****HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.219E-06	1.840E-06	1.150E-04	2.759E-03	5.212E-06

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	7.665E-07	1.686E-06	2.146E-06	5.825E-07	3.219E-06	0.003

Methodology is the same as page 6.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100  
Small Industrial Boiler**

**Page 8 of 11 TSD App A**

**Company Name: Thermo Products, LLC.  
Address City IN Zip: 5235 West State Road 10, North Judson, Indiana 46366  
FESOP: F 149-13888  
Plt ID: 149-00012  
Reviewer: Craig J. Friederich  
Date: February 5, 2001**

**Heating Boiler B1c**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

0.400

3.50

Pollutant						
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.003	0.013	0.001	0.175	0.010	0.147

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 9 for HAPs emissions calculations.

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****HAPs Emissions****Company Name: Thermo Products, LLC.****Address City IN Zip: 5235 West State Road 10, North Judson, Indiana 46366****FESOP: F 149-13888****Plt ID: 149-00012****Reviewer: Craig J. Friederich****Date: February 5, 2001****Heating Boiler B1c****HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.679E-06	2.102E-06	1.314E-04	3.154E-03	5.957E-06

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	8.760E-07	1.927E-06	2.453E-06	6.658E-07	3.679E-06	0.003

Methodology is the same as page 8.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.



**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100  
Insignificant Activities**

**Company Name:** Thermo Products, LLC.  
**Address City IN Zip:** 5235 West State Road 10, North Judson, Indiana 46366  
**FESOP:** F 149-13888  
**Plt ID:** 149-00012  
**Reviewer:** Craig J. Friederich  
**Date:** February 5, 2001

**24 Heating Furnaces rated at 3.27 mmBtu  
1 Paint bake oven rated at 0.80 mmBtu  
2 Drying Ovens rated at .25 mmBtu each  
5 Furnace Test Areas rated at 1.08 mmBtu, total.**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

5.65

49.49

Pollutant						
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.047	0.188	0.015	2.47	0.136	2.08

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 11 for HAPs emissions calculations.

**Appendix A: Emissions Calculations****Page 11 of 11 TSD App A****Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****HAPs Emissions****Company Name: Thermo Products, LLC.****Address City IN Zip: 5235 West State Road 10, North Judson, Indiana 46366****FESOP: F 149-13888****Plt ID: 149-00012****Reviewer: Craig J. Friederich****Date: February 5, 2001****24 Heating Furnaces****1 Paint bake oven****2 Drying Ovens****5 Furnace Test Areas****HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	5.197E-05	2.970E-05	1.856E-03	4.454E-02	8.414E-05

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	1.237E-05	2.722E-05	3.465E-05	9.404E-06	5.197E-05	0.047

Methodology is the same as page 10.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.